Art. V.—*New or Little-known Victorian Fossils in the National Museum.*

Part XXI.—Some Tertiary Cetacean Remains.

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(With Plates IV. and V.).

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Introduction.

The following notes embrace descriptions of teeth of two new cetaceans, one of which is a second Australian species of the extinct genus of sperm whales, *Scaldicetus*, namely, *S.lodgei*. The other form is a tooth referred to the living genus *Steno*, a dolphin which, so far as I am aware, has not been previously noted in the fossil condition. Both types are from the Lower Pliocene or Kalimnan series.

A new locality is given for the tooth of the great sperm whale, *Physetodon baileyi*, whilst an incisor of the squalodont genus, *Parasqualodon*, is newly recorded from Leigh River, near Shelford, an occurrence which helps to confirm the Miocene age of these particular beds.

Probably the most interesting cetacean discovery from a distributional point of view is the occurrence in the Victorian Kalimnan (Lower Pliocene) series, of Owen's ziphoid species, *Mesoplodon compressus*. This genus of beaked whales is already represented in the Victorian Janjukian (Miocene) beds by the strap-shaped tooth of *Mesoplodon geelongensis*, McCoy sp. Cranial rostra belonging to several species of *Mesoplodon* are also found in the Pliocene of England, Belgium and Italy, and about eight species still exist. Until the present occurrence, the rostra of this genus were only known in the fossil condition from the northern hemisphere, but six of the species now found living have their habitat in the Southern Ocean and adjacent seas.

The following remarks on the genus *Mesoplodon* by Prof. Flower have an especial interest to students of Australian recent and fossil cetacea[1]: "The geographical distribution of the group has a very great interest in relation to that of many other Australian groups, both of vertebrates and invertebrates. Among the earliest known re-

1 Trans. Zool. Soc. Lond., vol. x., 1878, p. 436.

mains of Cetacea, in the Belgian and Suffolk Crag, *Mesoplodon*, and closely allied forms are most abundant. Up to a little more than ten years ago the few stray individuals of *M.bidens* occasionally stranded on the shores of North Europe were supposed to be their sole survivors. Since that time it has been proved that they are still numerous in species, and even in individuals (as many as twenty-five of *M.grayi* having been stranded on one occasion on the Chatham Islands, and four at another time on the New Zealand coast, where it is sufficiently abundant and well known to have obtained the local name of Cow-fish), in the seas which surround the Australian continent, extending from the Cape of Good Hope on the one side to New Zealand on the other, though beyond these limits no specimens have yet been met with. It is the history of the Marsupial Mammals, of *Ceratodus*, of *Terebratula* [*Magellania*], and of numerous other forms."

Systematic Description.

Order CETACEA. Sub-Order ODONTOCETI.

Fam. Physeteridae. Sub-fam. Physeterinae.

Genus Physetodon, McCoy.

Physetodon baileyi, McCoy.

Physetodon baileyi, McCoy, 1879, Prod. Pal. Vict., dec. VI., p. 19, pl. LV., figs. 1, 2. Lydekker, 1887, Cat. Foss. Mammalia, Brit. Mus. (Nat. Hist.), pt. V., p. 57.

Observations.—A portion of the tooth of the above species of extinct sperm whale has lately been donated to the Museum collection from a new locality in the Kalimnan series, viz., Grange Burn (Forsyth's), near Hamilton. It represents the apical portion of the tooth, about one-half of the entire length, and measures 132 mm. in length. At its widest part its measurement is exactly the same as the original specimen described by McCoy, which came from the Kalimnan of Beaumaris, so that it may be assumed that both individuals reached their maximum development before their demise.

The osteodentine around the pulp cavity shows the same spheroidal grouping of the dentinal layers round the vascular centres as in the earlier described specimens. The fracture at the proximal end of the specimen occurs near the junction of the osteodentine with the dentine proper. The cement is 14 mm. thick at 10.50 cm. from the apex.

Occurrence.—Tertiary (Kalimnan series). Grange Burn, near Forsyth's, Hamilton. Collected and presented by the late Lieutenant Edward Ellis Henty.

Genus **Scaldicetus**, Du Bus.

Scaldicetus lodgei, sp. nov. (Plate IV., Fig. 6).

Description.—Tooth, long, slender, conical, gently curved, especially in the apical portion. Pulp cavity open, narrow and apparently not very deep. The cement is smooth, but marked with microscopically fine longitudinal lines and cracks; it extends for 76.5 mm. from base of enamel cap down to the root, and is of a rather pale ochreous brown. The cement is corroded or eaten away in large patches, and the exposed dentine is encrusted in places with a nubecularian foraminifer, and there is also a valve of *Dimya* sp. attached to the surface of the root. The enamel cap, of a warm sienna brown colour, is longitudinally grooved and crenulated, but the relief is not so granulate as in the tooth of *S.macgeei*, Chapman.[1] Where the enamel is fractured the apex shows the dentine to be compact, semi-vitreous and dark brown in colour, weathering to ochreous.

Measurements.—Tooth, present length, 102.5 mm.; portion of apex missing, circ. 2 mm. Length of enamel cap when complete, cir. 15 mm. Diameter of tooth at base of enamel cap, 8 mm.; greatest diameter of root (at 23 mm. from base), 20.5 mm.; diameter of pulp cavity at base, 10 mm.

Weight.—The tooth referred to the above species weighs 1½ oz., or .104 kilogrammes. That of *Scaldicetus macgeei* weighs 6 oz. 2 dwts., or .423 kilogrammes. The largest tooth of the genotype, *S.carreti*, weighs 1½ kilogrammes.

Observations.—In comparing the tooth of *Scaldicetus lodgei* with that of the previously described *S.macgeei*, the following salient differences are noted :—

S. lodgei.	*S. macgeei.*
Crown one sixth of entire length.	Crown one third of entire length.
Enamel cap finely striated and crenulate.	Enamel cap rugosely vertically striated.
Apex of crown sharply conical.	Apex of crown broadly conical.
Root gradually widening to near base and then contracting.	Root widening rapidly to base.
Pulp cavity narrow, opening elliptical.	Pulp cavity large, open and subcircular.
Weight, .104 kilos.	Weight, .423 kilos.

From the two previously described species of *Scaldicetus*, the present form, *S.lodgei*, differs very markedly in its slender shape

1 Records Geol. Surv. Vict., vol. iii., pt. ii., 1912, p. 236, pl. xl.

and small size. The build of both *S.carreti*, Du Bus (Antwerp Crag) and *S.macgeei*, Chapm. (Beaumaris), is heavy, and the form of the teeth broadly conical. The present tooth of *S.lodgei* is that of a mature individual, and it does not in any of its characters suggest specific affinity with the Beaumaris species. As in *S.lodgei*, the Belgian species has the enamel of the crown longitudinally striated, whereas in *S.macgeei* the enamel is not only rugosely striated, but beaded or crenulate.

Occurrence.—Balcombian or Oligocene. Muddy Creek (Clifton Bank), near Hamilton, Victoria.

This tooth (holotype) was discovered by the late Mr. H. Lodge, of Hamilton, and we are indebted to Mr. F. P. Spry for presenting this interesting specimen to the National Museum.

Note.—According to the label, it was found at "Muddy Creek, near Hamilton." Since the locality is often used in a general sense by collectors for several geological exposures in the district, including the Kalimnan of the Grange Burn, it suggested the possibility of the tooth having come from the latter locality. However, this doubt is removed by an examination of the material enclosed in the pulp cavity of the tooth, which contained typical upper Clifton Bank foraminiferal sand with shells of the pteropod *Vaginella*, and rolled and wind-polished *Amphisteginae*. It is, therefore, conclusive that the tooth was found in *Vaginella* band at Clifton Bank, which includes the higher Balcombian horizon merging on the Janjukian bed represented in the Grange Burn area by red limestone.[1]

Sub-fam. Ziphiinae.

Genus **Mesoplodon**, Gervais.[2]

Mesoplodon compressus, Huxley sp. (Plate IV., Figs. 1-4 ; Plate V., Figs. 7-11).

Belemnoziphius compressus, Huxley, 1864, Quart. Journ. Geol. Soc., vol. XX. p. 388, pl. XIX.

Ziphius compressus, Owen, 1870, Crag Cetacea, No. 1 (Ziphius), Mon. Pal Soc., vol. XXIII. p. 25 ; pl. V., fig. 3.

Mesoplodon compressus, Huxley sp., Lydekker, 1887, Cat. Foss. Mammalia, Brit. Mus., pt. V., p. 73. Woodward and Sherborn, 1890, Cat. Brit. Foss, Vertebrata, p. 363.

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1 See Mem. Nat. Mus. Melbourne, No. 5, 1914, p. 44, fig. 14.

2 For notes on the validity of this generic term see Flower, W. H., Trans. Zool. Soc., vol. viii., 1872, p. 268, footnote 3, and Idem, ibid., vol. x., 1878, p. 434.

Observations.—Mesoplodon agrees with the other beaked whale, *Ziphius* (of which there is probably only one living species), in having an ossified mesethmoid, but the nasals joined together form the vertex of the skull in the latter genus. In *Hyperoödon*, the bottle-nosed whale, there are large longitudinal crests on the maxillae at the base of the rostrum. In *Berardius* the mesethmoid is only partially ossified. *Choneziphius* has the mesethmoid cartilage non-ossified, and there is a fistular cavity throughout the short, thick rostrum. According to Flower, the tympanic bone of *Berardius* is exactly like that of Mesoplodon.[1]

The chief character given by Owen for the cranial rostrum in the species *compressus* is "the predominance of the dimensions of depth over that of breadth at every part of the extent of the specimen figured." Prof. Owen also states that "the pre-frontal mid-tract is transversely convex from its beginning, the convexity increasing as it advances; and, from the low position of the ecto-maxillary ridges and the steep slope thereto of the premaxillaries, the mid-tract seems, of itself, to constitute the upper surface of the rostrum," In Huxley's specimen the same character of great vertical depth prevails, with the exception of the extreme posterior, where it is wider than deep. This exception would also most likely have obtained in Owen's specimen, but for the fact that the posterior area adjacent to the narial openings is wanting.

The only apparent differences between Huxley's and Owen's specimens are that, in the former, the sectional outline is more distinctly rhomboid, and there is a slit in the mesethmoid band "about $2\frac{1}{4}$ in. in front of the upper apertures of the canals," . . . . "which deepens as it passes backward and becomes lost in an irregular fossa." This median slit is not present in the nearly perfect Australian specimen from Grange Burn, so that in this point it agrees with Owen's example. On the other hand, another specimen from Grange Burn, which is in Mr. Dillwell's collection at Hamilton, and of which there are casts in the National Museum, shows a distinct median slit, as in the Huxley example, and much longer, measuring $4\frac{3}{4}$ in. The two Grange Burn specimens have been carefully examined and measured, with a view to discovering any definitely separable characters, but with the result that one feels bound to conclude that the slight differences between them represent merely individual variation, such as are evident in living species of this genus. For example, the median slit probably representing a vesti-

1 Flower. Ibid., vol. x., 1878, p. 423.

gial line of imperfect ossification, or even infilling of a hollow vomerine, as met with in *Choneziphius*, may be wholly obliterated in some examples and not in others; whilst abrasion may have something to do with its absence, since all fossils from the nodule beds are more or less rolled and worn.

The sectional drawing of the rostrum of "*Belemnoziphius compressus*," given by Prof. Huxley, is so nearly like that of Owen's "*Ziphius compressus*," the former being more angular in outline than the latter, but generally agreeing with the Grange Burn specimens in general contour, that it is impossible to point to a specific difference between all three occurrences. The interesting point to note, however, is that the more perfect rostrum from Grange Burn, with its smoother posterior mid-tract, agrees more closely with Owen's example; whilst the less perfect Grange Burn specimen, with its fissured mid-tract, agrees more nearly with Huxley's specimen. Apart from a consideration of morphological and structural differences in these Australian specimens, the fact that they occur together in the same geological horizon, would lend support to the assumption that, being otherwise so closely allied, they were specifically identical.

Description of examples of Mesoplodon compressus, Huxley sp. from Grange Burn.

Specimen A. *Description.*—A well preserved cranial rostrum. In this specimen the pre-frontal mid-tract rises prominently above the upper surface of the rostrum; it is at first (proximally) flatly convex, becoming more strongly arched towards the middle of the rostrum and again depressed in the anterior third. This mid-tract is proportionally narrow as compared with some other described forms, as *Mesoplodon longirostris*, Cuvier sp.[1], and differs from that species in the absence of the deep, longitudinal sulcus. The upper median surface of the rostrum rises and falls in two low curves from the base to the tip of the snout, the greatest convexity being situated a little in front of the middle of the rostrum. The rostrum is slender and gently tapering, and is deeper than wide along the entire length excepting in the pre-frontal area, where the depth is less than the width. A transverse section of the rostrum in any part of the middle and anterior thirds gives a laterally compressed hexagonal figure, whilst that from the pre-frontal region is trapezoidal in outline, not unlike that of *M. tenuirostris*, Owen sp.[2]

1 *Ziphius longirostris*, Cuvier, Ossemens Fossiles, 2nd ed., vol. v., pt. i., 1823, p. 357. *Ziphius mediluneatus*, Owen, Crag Cetacea (Mon. Pal. Soc.), 1870, p. 22, pl. iv., fig. 3. *Mesoplodon longirostris*, Cuv. sp., Lydekker, Cat. Foss. Mamm. Brit. Mus., pt. v., 1887, p. 68, fig. 13.

2 *Ziphius tenuirostris*, Owen, op. cit., 1870, p. 24, pl. v., figs. 1, 2. *Mesoplodon tenuirostris*, Owen sp., Lydekker, op. cit., 1887, p. 71.

The narial orifices are situated in a concavity of the extended premaxillae, the left being not so long as the right. The nervo-vascular foramina of the interorbital area of the maxillary are slightly in advance of the narial openings, and lead downward and backward to the ent-orbital foramina. The vomerine is visible on the inferior surface of the rostrum as a narrow lenticular wedge about 90 mm. long and 9 mm. broad in the widest part.

In a cavity of the premaxillary on the right side of the rostrum, about 41 mm. from the anterior, there occurs, embedded in the hardened and phosphatized mud, a small tooth of a depressed conical shape, slightly curved and bluntly pointed, having a length of 4 mm. and a width of 2.5 mm.[1]

Measurements.—Total length of complete rostrum, 49.5 cm. Width on a tranverse line through middle of antorbital foramina, 12.6 cm. Width at 10 cm. from base, 62 mm.; depth, 80 mm. Width at 20 cm. from base, 54 mm.; depth, 61 mm. Width at 30 cm. from base, 39 mm.; depth, 46 mm. Width at 20 mm. from apex, 21 mm.; depth, 23 mm. Distance between narial openings, 31 mm. Distance between antorbital foramina, 82 mm. Width of mesethmoid band at 75 mm. from base, 23 mm.

Specimen B. *Description.*—This is a less perfect example than the foregoing, the rostrum having lost about one-half of the anterior portion, and the lateral edges of the maxillaries in the pre-frontal region. The characters of this specimen compare closely with the foregoing. The slope on either side of the mesethmoid ridge is steep as in the previous specimen, but the surface is more convexly rounded and the ecto-maxillary ridge less prominent. The inner margins of the narial openings are 21 mm. apart as against that of Spec. A, in which they are 32 mm. apart. Specimen B, however, is proportionately smaller in every respect, and either represents a mature individual of different sex from Specimen A, or is a younger example.

Measurements.—Length of rostrum (incomplete), 25.5 cm. Width on a transverse line through middle of antorbital foramina (incomplete expanse), 9.4 cm. Width at 10 cm. from base, 61.5 mm.; depth 90 mm. Width at 20 cm. from base, 43 mm.; depth, 59 mm.

Relationship of M.compressus with living species.

According to Professor Sir W. H. Flower there are eight existing species of this genus, all of which, as that author says,

1 The structure of the tooth in *Mesoplodon sowerbii* (=*M. bidens*) has been described by E. Ray Lankester in Trans. R. Microsc. Soc. (n.s.), vol. xv., 1867, p. 55. See also Flower, W. H. Trans. Zool. Soc., vol. viii., 1872, p. 223, for description of tooth of *Berardius arnouxi*.

"have a close generic resemblance. *Mesoplodon bidens*, Sowerby sp., is common to the North Sea and North Atlantic; *M.europaeus*, Gervais, sp., was found in the English Channel; *M.densirostris*, Blainville sp., occurred off the Seychelles Islands, South Africa, and Lord Howe Island; *M.layardi*, Gray sp., was found off the Cape of Good Hope, near Sydney, New Zealand and the Chatham Islands; *M.hectori*, Gray sp., found in Titai Bay, New Zealand; *M.grayi*, Haast sp., from Bank's Peninsula, New Zealand; *M.haasti*, Flower, North Island, New Zealand; and *M.australis*, Flower, from Lyall Bay, New Zealand.

In certain structural characters of the cranial rostrum, the relationships of the fossil, *M.compressus*, judging from the Australian specimens, lie nearest to *M.grayi*, Haast sp., from New Zealand,[1] chiefly by the indications of a row of small teeth in the upper jaw, as well as by the deep lateral basirostral groove, and the posterior position of the premaxillary foramen in relation to the maxillary. In the sectional sketches of rostra of living species of *Mesoplodon* by Flower,[2] that of *Mesoplodon haasti* is almost identical both with those given by Huxley and Owen respectively, as well as some taken from the above described Victorian specimens. In regard to the supposed identity of *M.grayi* and *M.haasti*, by Von Haast, who included them under the one species name of *M. grayi*, Flower remarks[3]: "Making every allowance for individual variation, it scarcely seems possible that a rostrum such as that shown in Fig. 2, could change in the course of growth to that of Fig. 3. If so, most of the determinations of the fossil species based solely upon the form of the rostrum are quite valueless."

Occurrence.—The discovery of two Australian fossil specimens of a ziphoid whale identifiable with a species occurring in the Crag deposits of England is especially interesting to stratigraphists, since it further confirms the identification of the Victorian Kalimnan beds with the Pliocene of England and Belgium. Specimen A of the foregoing descriptions was received by exchange from Mr. R. Hughan, whilst Specimen B is a cast taken from a fossil in Mr. Dillwell's collection. They are both from the Kalimnan (Lower Pliocene) of Grange Burn, near Hamilton.

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1 See synopsis of characters of *Mesoplodon* by Flower, Trans. Zool. Soc., vol. x., 1878, p. 418.
2 Op. cit., p. 422, figures.
3 Flower, op. cit., vol. x., 1878, p. 422.

Note on "*Ziphius* (*Dolichodon*), *geelongensis*," McCoy.[1]

The fossil from Waurn Ponds referred by Sir F. McCoy to a ziphioid is a long, strap-shaped tooth, having a compressed oval sectional outline, and an extensive but slender pulp cavity. It is compared with a type of tooth seen in *Mesoplodon layardi* (found off the Cape of Good Hope, Chatham Islands and New Zealand), in which the pair of mandibular teeth have a crown composed of true dentine surmounted by a small and pointed enamel cap. The crown is raised upon a solid mass of osteo-dentine, which has a continuously changing form as the tooth advances in growth, tending upwards, backwards, and finally inwards.[2] In course of time these teeth interlock over the top, preventing complete opening of the jaws. Their great size and recurved form is curiously paralleled in the sabre-toothed tigers, as remarked by Beddard.[3]

The existing *M.layardi*, Gray sp., and, presumably, *M.geelongensis*, McCoy sp., belong to the genus *Mesoplodon* sensu stricto, while *M. compressus*, Owen sp., is referable, according to Flower, to the group *Dioplodon*, including *M.densirostris*, Blainv. sp., *M.australis*, Flower, *M.grayi*, Fl. and *M.haasti*, Fl.

Fam. Squalodontidae.

Genus Parasqualodon, T. S. Hall.

Parasqualodon wilkinsoni, McCoy sp.

Squalodon wilkinsoni, McCoy, 1875, Prod. Pal. Vict., dec. 2, p. 7, pl. XI., Figs. 1*a-d*. Id., ibid., 1879, dec. 6, p. 20, pl. LV., Figs. 3, 3*a, b*.

Prosqualodon wilkinsoni, McCoy sp., T. S. Hall, 1911, Proc. R. Soc., Vict., vol. XXIII., N.S. pt. II., p. 262, pl. XXXVI., Figs. 1-5.

Observations.—In Dr. Hall's paper, "On the Systematic Position of the species of *Squalodon* and *Zeuglodon* described from Australia and New Zealand," a specimen (No. 5529) in the National Museum from Waurn Ponds is figured. This is noticed by Hall as an "Incisor of (?) *Parasqualodon wilkinsoni*." Having recently examined the cetacean teeth in the Museum in some detail for the purpose of the present paper, I have arrived at the conclusion that this specimen is without doubt referable to the above species, and that the curious appearance of an incision at the base of the crown as shown

1 Prod. Pal. Vict., dec. 7, 1882, p. 23, pl. lxix.
2 See Flower, op. cit., vol. x., 1878, p. 418.
3 Cambridge Nat. History. Mammalia, 1902, p. 369.

in the photograph by Dr. Hall, is due to an interesting mineralogical change set up in the tooth during early fossilisation and subsequent weathering. The narrower root axis as compared with the crown is caused by phosphatization of the dentine and its consequent hardening, whereas the surrounding cement, being of a softer texture, has subsequently been removed by the resortment and disturbance of the deposit before final sedimentation. The surface of the phosphatized axis of the tooth is polished like that of the mineralized tympanic bones found associated in the same beds. The grooved ornament of the enamel of the crown of the tooth is exactly similar to typical incisor teeth of *P. wilkinsoni*.

Occurrence.—Tertiary (Janjukian.) Waurn Ponds, near Geelong. Presented by the Rev. C. S. Y. Price.

A new locality for *P. wilkinsoni* may here be noticed, namely Leigh River, near Shelford, where a fairly complete incisor was found and presented to the National Museum by Mr. J. H. Young, of Meredith. This discovery of a typical Miocene species helps to correlate the Shelford beds with the Janjukian series.

Fam. Delphinidae.

Genus Steno, Gray.

Steno cudmorei, sp. nov. (Plate IV., Fig. 5).

Description.—Tooth, convexly curved and twisted, more or less circular in section. Root more than twice the length of the crown, closed at the base and swollen or bulbous just below the base of the crown. Crown conical, curved, with a moderately sharp apex; colour dark brown increasing in depth to black at the base; surface roughly scored by fine irregular vertical furrows. The cementum impinges over the base of the crown, and at 2.5 mm. below the crown is cinctured by a brown stain, probably marking the upper edge of the alveolus. The root is ochreous brown to yellow, and irregularly wrinkled and furrowed, especially towards the base.

Measurements.—Length of tooth, measured along the outer side, 23 mm. (crown 7 mm.; root, 16mm.); width of crown at base, 4 mm.; widest part of root, near distal end, 5 mm.

Observations.—At first glance this tooth might be thought to show alliance with the incisor of *Parasqualodon*, which it resembles in general shape and in the vertically rugose crown. The root in the present tooth, however, is closed, whilst that of the incisor of *Parasqualodon* is open and deep. Further than this, *Parasqualodon* has

the crown nearly, if not quite, equal in length to the root, and the enamel furrows are sharply ridged and not vermiculate, as in the above species.

The smaller and slender character of the tooth and the closed root resembles that of the Dolphin family, and comparison was made with *Delphinus uncidens*, Lankester,[1] which, although having the peculiar twisted and swollen shape of the root of the Beaumaris tooth, has the enamel of the crown finely and sparsely furrowed. Turning, then, to Prof. Flower's classical paper "On the Characters and Divisions of the Family Delphinidae,"[2] we read that the genus *Steno*, which is represented by *S.rostratus*, Cuvier sp., and found in the Atlantic, Indian and Pacific Oceans, and in the Red Sea, is distinguished from other genera of this family by the furrowed character of the teeth :—"Teeth, 21 to 25 on each side of the jaw, of comparatively large size (5-6 millims at base of crown),[3] and in most, if not all the species, with their surfaces roughened by fine, irregular longitudinal grooves (which are in a great measure effaced in old individuals), not seen in other Dolphins, and whence the name *Glyphidelphis* proposed by Gervais for the section."[4]

Occurrence.—Tertiary (Kalimnan), Lower Pliocene. Beaumaris, Port Phillip. Found by Mr. F. A. Cudmore, after whom it has been named, and who presented it to the National Museum.

EXPLANATION OF PLATES.

Plate IV.

Fig. 1.—*Mesoplodon compressus*, Huxley sp. Cranial rostrum, viewed from above. Specimen A. Tertiary (Kalimnan.) Grange Burn, near Hamilton, Victoria. About $\frac{2}{7}$ natural size.

Fig. 2.—*M.compressus*, Huxley sp. Cranial rostrum, viewed from the side. Specimen A. About $\frac{2}{7}$ natural size.

Fig. 3.—*M.compressus*, Huxley sp. Cranial rostrum, viewed from below. Specimen A. About $\frac{2}{7}$ natural size.

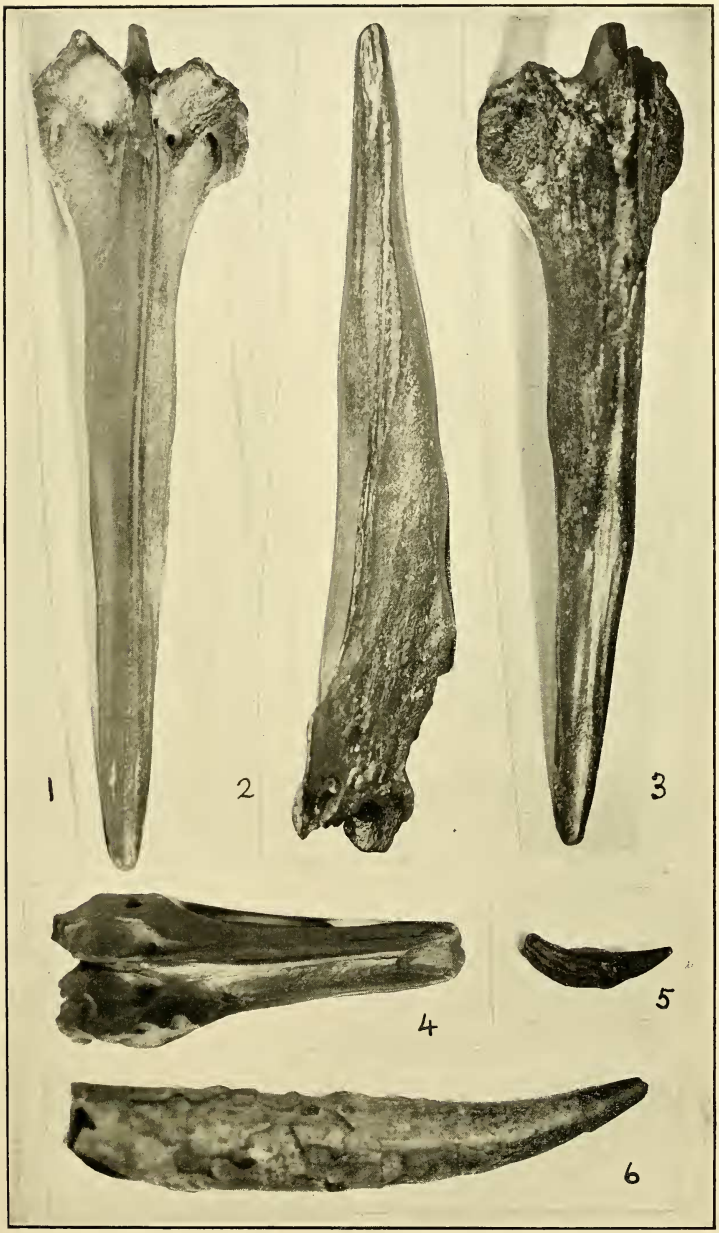
Fig. 4.—*M.compressus*, Huxley sp. Cranial rostrum, viewed from above. Specimen B. Same locality. About $\frac{2}{7}$ natural size.

1 Ann Mag. Nat. Hist , ser. 3, vol. xiv., 1864, p. 356, pl. viii., figs. 12, 13. This tooth and otic bones have since been referred to the genus *Globicephalus*. See Lydekker. Cat. Foss. Mammalia. Brit. Mus., pt. v., 1887, p. 81.

2 Proc. Zool. Soc. Lond., 1883, pp. 466-513.

3 Width of crown in fossil specimen, 4 mm.

4 Op. supra cit., p. 482.



F.C., Photo.

Mesoplodon, Steno and Scaldicetus. Tertiary, Victoria.